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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,463	04/24/2002	Alexander Furbach	P/1903-20	8410

7590

12/18/2002

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EXAMINER

FLORES RUIZ, DELMA R

ART UNIT

PAPER NUMBER

2828

DATE MAILED: 12/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/030,463

Applicant(s)

FURBACH ET AL.

Examiner

Delma R. Flores Ruiz

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.


- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.


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Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 1 – 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims 1 – 11 are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

Claims 1 – 11 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: Claim 1 for example presents a mere recitation of a group of elements without disclosing how said

elements are interrelated in order to perform as an apparatus capable of carrying through any perceptible actions. There is no structural or means recited in the claim, for performing the apparatus, example laser crystal, pump unit, mode locking, resonator arms, etc. One of ordinary skill in the art will not understand the apparatus since the components of the apparatus are not clearly stated at the claim as a complete structure.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 – 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Rieger et al. (5,790,574).

Regarding claim 1 Rieger disclose a laser arrangement comprising a pump unit (the examiner marc Fig. 3 Character 1) containing a pumped laser crystal (see Figs. 6 and 12, Character 67), and further comprising means for passive mode locking (see Figs. 6 and 12, Character 75), characterized in that two separate, alternatively

switchable resonator arms are provided, one resonator arm, comprises the means for passive mode locking, whereas the other resonator arm, which is active in an amplifying phase, is free from components that introduce losses (see Figs. 6 and 12).

Regarding claims 2 and 3, Rieger discloses a polarization-sensitive beam divider (see Fig. 12, Character 71), as well as polarization rotating means (see Fig. 12, Character 69), is provided for switching between the two-resonator arms (see Fig. 12). The polarization rotating means is formed by a Pockels cells (see Figs. 6 and 12 Character 69).

Regarding claim 4, Rieger discloses a respective polarization-sensitive beam divider (see Fig. 12, Character 71, and 98) is provided in the path of the laser beam on both sides of the polarization rotating means (see Fig. 12, Character 69).

Regarding claim 5, Rieger discloses a polarization rotating means (see Fig. 12 Character 69) opposite to the means (see Fig. 12, Character 65) for passive mode locking, the polarization-sensitive beam divider (see Fig. 12, Character 71), simultaneously forms a laser beam-outcoupling element.

Regarding claim 6 – 8, Rieger discloses a passive mode-locking is saturable absorber (Column 9, lines 40 – 56), the saturable absorber is a saturable semiconductor

absorber (Column 9, lines 40 – 56) and the saturable absorber is an absorber mirror terminating the one resonator arm (said limitation only recites facts and features that are well known and expected, the same features that essentially result from the use or application of a saturable absorber is an absorber mirror terminating the one resonator arm , and therefore said limitations are said to be inherently disclosed in the teachings of Rieger).

Regarding claim 9, Rieger, discloses in the resonator arm which is active in the pulse forming phase a linear loss element, e.g. a $\lambda/4$ platelet (see Fig. 3 Character 34), is arranged which provided for a high energy accumulation in the laser crystal (see Figs. 3, 6, and 12),

Regarding claim 10, Rieger, discloses a pump unit (the examiner mark Fig. 3 Character 1) is a continuous wave diode pump unit (see Fig. 6 and 12 Character 61) forming, in combination with the polarization rotating (see Fig. 12, Character 69), a resonator part common to both resonator arms.


Regarding claim 11, Rieger, the pump unit (the examiner mark Fig. 3 Character 1), is lamp-pumped or laser pumped (see Fig. 12, Character 61), forming, in combination with the polarization rotating means (see Fig. 12, Character 69), a resonator part common to both resonator arms (see Figs 3, 6 and 12).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Delma R. Flores Ruiz whose telephone number is (703) 308-6238. The examiner can normally be reached on M - F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3431.


Delma R. Flores Ruiz
Examiner
Art Unit 2828


Paul Ip
Supervisor Patent Examiner
Art Unit 2828

DRFR/PI
December 13, 2002